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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/577,743 | 02/13/2007 | Udo-Martin Gomez | 10191/4184 | 2848 |

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| EXAMINER | |
|---|---|
| CHAPMAN JR, JOHN E | |
| ART UNIT | PAPER NUMBER |
| 2856 | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/577,743 | GOMEZ ET AL. | |
| | Examiner | Art Unit | |
| | John E. Chapman | 2856 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *14 December 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *11-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 11-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The structure and operation of the disclosed yaw rate sensor are unclear. Consequently, it is not clear how to make and use the invention. In Fig. 2 according to the present invention, comb drive (6) of the drive element and quadrature compensation structures (8, 9) of the Coriolis element appear to be located on the same element, rather than on different elements (1a, 2a) connected by U-shaped springs (4) as shown in prior art Fig. 1. Consequently, the drive element in Fig. 2 appears to be rigidly connected to the Coriolis element, which arrangement would render the yaw rate sensor inoperative. Insofar as the drive element (1a) in Fig. 1 is incapable of motion in the detection direction (Y), a Coriolis element rigidly connected to the drive element would be incapable of "deflection . . . in a second axis that is perpendicular to the first axis." The yaw rate sensor in Fig. 2 does not show a Coriolis element situated above a substrate and connected to a drive element by a plurality of springs, nor is it evident how a plurality of springs are to be included in the yaw rate sensor in Fig. 2. Likewise in the other disclosed embodiments

of the present invention in Figs. 3, 4 and 5, the drive element appears to be rigidly connected to the Coriolis element, which arrangement would the yaw rate sensors inoperative. It is not evident that the yaw rate sensors in Figs. 3, 4 and 5 comprise a plurality of springs connecting a Coriolis element to a drive element, nor is it evident how the yaw rate sensors are to be provided with a plurality of springs.

3. Applicant's arguments filed December 14, 2010 have been fully considered but they are not persuasive. Applicant argues that enablement must be evaluated against the claimed subject matter and the focus of examination is whether everything within the scope of the claim is enabled (Emphasis added by applicant) and that the claims do not recite the features which, according to the examiner, prevent one skilled in the art from being able to make and/or use the invention. However, it is not necessary that the non-enabling features be set forth in the claim. Rather, it is necessary that applicant set forth in the specification at least one embodiment within the scope of the claims in such a manner as to enable any person skilled in the art to make and use the invention. Specific operative embodiments or examples of the invention must be set forth. M.P.E.P. § 608.01(p). The examiner was merely explaining why the specification fails to set forth any operative embodiment or example of the invention.

Applicant argues that Figure 2 (as opposed to Figure 1) is merely a schematic drawing and that no specific conclusion can be drawn from Figure 2 as to the exact position of one element with respect to another, e.g., the location of the comb drive, quadrature compensation structures, and plurality of springs. While a schematic drawing is certainly permitted, it must be clear to one of ordinary skill in the art how to fill in the details of the schematic drawing that are

necessary to form an operative device. With regard to Figure 2, it is not clear, for example, whether and how a plurality of springs are to be provided between comb drive (6) of the drive element and quadrature compensation structures (8, 9) of the Coriolis element. Nor is it clear whether and how springs are to be provided between the drive/Coriolis element and a substrate so as to render the device operative, i.e., so that the drive element is driven along a first axis parallel to the substrate at a frequency of oscillation, the Coriolis element is induced to oscillate parallel to the first axis and to deflect in a second axis perpendicular to the first axis in response to a dynamic action of a force, and the force action has at least one frequency such that is an integral multiple of a frequency of oscillation of the drive element parallel to the first axis.

Applicant argues that the specification at page 4, line 25, through page 5, line 1, makes clear how the Coriolis element may be induced by the drive element to oscillate parallel to a first axis X. However, the specification at page 4, line 25, through page 5, line 1, is directed to the embodiment of Figure 1 according to the prior art and not to the embodiment of Figure 2 according to the present invention. While the embodiment of prior art Figure 1 may be enabled, applicant fails to explain how the any of the embodiments of applicant is to be modified in light of the prior art so as to comprise an operative device.

Applicant argues that there are many factors to be considered in determining whether a specification satisfies the enablement requirement, and that any nonenablement conclusion "must be based on the evidence as a whole." However, the only evidence of record is that of applicant's own disclosure. Applicant has not provided any supplemental evidence showing (1) how any of the embodiments of applicant is to be modified (in particular, provided with a

plurality of springs) so as to comprise an operative device and (2) that such would have been obvious to one of ordinary skill in the art.

Applicant refers to the Office Action's "unsupported assertions" and states that they do not concern whether the present application enables a person having ordinary skill in the art to practice the claimed subject matter of the claims without undue experimentation. However, the Examiner's assertion that the embodiment of Figure 2 does not show a Coriolis element situated above a substrate and connected to a drive element by a plurality of springs is not an "unsupported assertion." It is supported by applicant's own disclosure. Furthermore, Applicant does not dispute the finding that Figure 2 does not illustrate a Coriolis element connected to a drive element by a plurality of springs. Likewise, the examiner's assertion that the specification does not provide any guidance as to how the Coriolis element in Fig. 2 is to be connected to the drive element by a plurality of springs is not "unsupported." Applicant fails to show where the specification teaches how to modify the embodiment of Fig. 2 so as to provide a plurality of springs between the Coriolis element and the drive element. The fact that the embodiments of applicant (figs. 2-6) must be dissected and put back together with additional components (i.e., springs) and without any guidance from the applicant certainly constitutes "undue experimentation," i.e., an unreasonable demand upon one of ordinary skill in the art. Consequently, the Examiner's determination that the claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention is not merely a conclusory statement that only reflects the subjective and unsupported beliefs of the Examiner. It is a reasoned conclusion based on the evidence as a whole.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John E Chapman/
Primary Examiner
Art Unit 2856